MEMORANDUM

TO: Angelic Diaz, Region 8, Environmental Protection Agency, Denver, Colorado

FROM: Sarah Fields, Uranium Watch, PO Box 344, Moab, Utah 84532

DATE: January 17, 2012

RE: Division of Air Quality, Utah Department of Environmental Quality, Implementation of 40 C.F.R. Part 61 Subpart W, for the White Mesa Uranium Mill, San Juan County, Utah.

1. ENVIRONMENTAL PROTECTION AGENCY REGULATIONS

1.1. In 1995 the Environmental Protection Agency (EPA) gave the State Of Utah authority to administer and enforce radionuclide National Emission Standards for Hazardous Air Pollutants (NESHAPS) in the State of Utah.[1] These NESHAPS included 40 C.F.R. Part 61 Subpart W—National Emission Standards for Radon Emissions From Operating Mill Tailings—and the Subpart A General Provisions. The Utah Department of Environmental Quality, Division of Air Quality (DAQ), administers the NESHAP program.

1.2. The White Mesa Uranium Mill, San Juan County, Utah, is subject to the provisions of 40 C.F.R. Part 61 Subpart W. The Mill is owned and operated by Denison Mines (USA) Corporation.

1.3. 40 C.F.R. Part 61 Subpart W, § 61.252 states, in pertinent part:

> Sec. 61.252 Standard.
>
> (a) Radon-222 emissions to the ambient air from an existing uranium mill tailings pile shall not exceed 20 pCi/(m\2\-sec) (1.9 pCi/(ft\2\-sec)) of radon-222.
> (b) After December 15, 1989, no new tailings impoundment can be built unless it is designed, constructed and operated to meet one of the two following work practices:
> (1) Phased disposal in lined tailings impoundments that are no more than 40 acres in area and meet the requirements of 40 CFR 192.32(a) as determined by the Nuclear Regulatory Commission. **The owner or operator shall have no more than two impoundments, including existing impoundments, in operation at any one time.** [Emphasis added.]

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[1] 60 Fed. Reg. 13912, 13912-13914; March 15, 1995.

2. WHITE MESA MILL OPERATING TAILINGS IMPOUNDMENTS

2.1. Cells 2 and 3

2.1.1. The White Mesa Mill has two tailings impoundments (Cells 2 and 3) that were operational prior to December 15, 1989, and continue to be in operation. These two impoundments were measured for their radon flux in 2010, pursuant to the requirements in 40 C.F.R. Part 61, Subpart W. Denison submitted their Annual Subpart W Compliance Report for 2010.[2] That report included the radon flux measurements for Cells 2 and 3 and documented Cell 2 and Cell 3 compliance with the Subpart W standard. The report discusses the Regulatory Requirements for the Site, and stated that the applicable regulations are specified in 40 C.F.R. Part 61, Subpart W. The Report also stated, "At present, there are no [40 C.F.R. Part 61] Subpart T tailings at this site."

2.1.2. The April 5, 2011, Notification of Denison Mines (USA) Corp.'s schedule for the 2011 NESHAPS Radon Flux Measurements at the White Mesa Mill" provided the DAQ with the schedule for measuring the radon flux for Cells 2 and 3 in 2011.[3]

2.1.3. Denison has never stated that either Cell 2 or 3 were not operational and no longer subject to the Subpart W radon flux standard. Denison has not informed the DAQ or the Utah Division of Radiation Control (DRC) that Cell 2 or Cell 3 is not operational and undergoing closure. At this time, Denison does not have an approved final reclamation plan or approved reclamation milestones for the closure and reclamation of Cell 2 or Cell 3. The DRC's draft renewed source material license for the Mill is for the operation of Tailings Cells 1, 2, 3, 4A and 4B (License Condition 9.1).[4]

2.2. Cells 4A and 4B.

2.2.1. The DAQ approved the construction of Cell 4B on May 3, 2010. It is my understanding that the EPA approved the construction of Cell 4A prior to 1995, and the DAQ determined it was not necessary to approve the reconstruction of the Cell.

2.2.2. The 2010 Annual Compliance Report mentions the repaired Cell 4A and the newly constructed Cell 4B. The report states, "Cell 4A and 4B comply with the requirements of 40 CFR 61.252(b), therefore no radon flux measurement is required on either Cell 4A or 4B."

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[2] "40 Code of Federal Regulations, Part 61.254, Subpart W Radon Flux Reporting for the White Mesa Mill," March 28, 2011. http://www.uraniumwatch.org/denisonmill.ut/denison_2010_SubpartWRpt.110328.pdf

[3] Ibid.

[4] http://www.uraniumwatch.org/denisonmill.ut/drc_draft_whitemesa_LicenseRenewal_redline.111012.pdf

2.2.3. Apparently, Cell 4A was first used to store processing liquids, then used for the deposition of tailings once Cell 4B became operational. According to the September 2011 Revision 5 to the White Mesa Mill Reclamation Plan[5] (page 2-5), Cell 4A was placed into service in October 2008 and Cell 4B in February 2011. The Reclamation Plan (page 2-6) also states, "Slurry disposal has taken place in Cells 2, 3, and 4A." And (page 2-7), "Cell 4B is currently only accepting process solutions." Also, with respect Cell 4B, the Reclamation Plan (page 2-7) states, "Slurry disposal in Cell 4B will be conducted in the same manner as Cell 4A." Therefore, Denison can start to dispose of tailings slurry in Cell 4B at any time, without further authorization by the DAQ or the DRC. The DRC has not yet completed the process for the approval of Rev. 5 to the Reclamation Plan. Revision 5 does not include proposed reclamation schedules (enforceable milestones) for the closure of Cells 2 and 3.

3. CONCLUSION

3.1. Clearly, there are three (3) or four (4) tailings impoundments in operation at the White Mesa Mill. Subpart W only authorizes two (2) operational tailings impoundments. Therefore, the White Mesa Mill is not in compliance with the requirement that that the owner or operator or a uranium mill have no more than two impoundments, including existing impoundments, in operation at any one time, pursuant to 40 C.F.R. § 61.252(b)(1).

3.2. Denison must close the existing Cells 2 and 3 and not be permitted to place tailings in Cells 4A and 4B while Cells 2 and 3 are operational.

3.3. There are other issues associated with the integrity of the liners in Cells 2 and 3 and the presence of tailings contaminants in groundwater that provide additional justification for the closure of Cells 2 and 3. The sooner the Cells 2 and 3 begin closure and the estimated 10-year dewatering process begins, the better.

3.4. Apparently, the DAQ cannot or will not assure that the White Mesa Uranium Mill complies with the requirements in 40 C.F.R. Part 61 Subpart W.

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[5] Reclamation Plan, White Mesa Mill, Blanding, Utah Radioactive Materials License No. UT1900479, Revision 5.0, September 2011. http://www.radiationcontrol.utah.gov/Uranium_Mills/IUC/Denison_IUC/reclamation%20plan%2050/recplan5_0.pdf